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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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03/16/2001

David Smith

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24978

7590

02/11/2004

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EXAMINER

LEE, BENNY T

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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09/811,376 FILING DATE:

EXAMINER

ARTICLE

DATE

the examiner in charge of the application  
PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 6 Nov 2003 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892.        | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                  |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.             | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____   |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-15, 17-36, 38-44 are pending in the application.  
Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☒ Claims 37 has been cancelled.
3. ☒ Claims 1-10, 14, 15, 18-22 are allowed.
4. ☒ Claims 11-13, 17; 23-36, 38-43 are rejected.
5. ☐ Claims \_\_\_\_\_ are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_, filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the scattering defect (claim 36) still must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. Note that claim 36 remains pending in the application.

Claims 11-13, 17, 23-36, 38-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 11, 13, 17, note that the recitation "from within or without" is vague in meaning and needs clarification. Do these claims intend to mean that the "modulable medium" can be —internally—modulable or in the alternative be —externally- modulable? If so, then appropriate clarification is needed.

In claim 23, third and fourth paragraphs, note that it is unclear how each recitation of "an array of elements" relates to each other (e.g. the same array, different arrays, etc). Clarification is needed. In the fourth paragraph, note that "said negative permittivity composite medium" lacks strict antecedent basis. Also, note that it is unclear with respect to which "array of elements" is "said elements" intended to be associated. Clarification is needed.

In claims 30, 31, 32, 33, note that the recitation "each said negative permittivity composite medium" is not consistent with the claim 23 recitation where only a single

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"negative permittivity composite medium" appears to have been defined. Clarification is needed.

In claims 38-40, note that these claims improperly depend from canceled claim 37. Clarification is needed.

In claims 40, 41, 42, note that "said units" lack strict antecedent basis.

In claims 43, 44, note that "the adiabatic absorption" remains vague in meaning and still needs clarification. Also, note that it is unclear which "medium" is intended by the recited "said medium". Clarification is needed.

The following claims have been found objectionable for reasons set forth below:

In claims 12, 15, line 1 of each claim, note that —modulable permittivity—should precede "medium" for clarity of description.

In claim 23, third paragraph, first line, note that "an array of elements each of which" should be rephrased as —an array of elements, each element—for a proper characterization.

In claims 27-29, note that —shape—should follow ' "G" ', "Swiss roll" & "spiral", respectively for clarity of description.

Applicants' are requested to verify the numbering of the claims in the just filed amendment relative to the claim numbering in previously filed amendments in view of apparent inconsistencies in the claims presented (e.g. "blank claim 16" & "canceled claim 37").

Claims 1-10, 14, 15, 18-22 are allowable over the prior art of record for the reasons set forth in applicants' last response.

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**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.



**BENNY T. LEE**  
**PRIMARY EXAMINER**  
**ART UNIT 2817**